

Notice of Allowability

Application No.

10/679,494

Applicant(s)

OKUMURA ET AL.

Examiner

Art Unit

Courtney Thomas

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to preliminary amendment filed 10/07/03.
2. ☒ The allowed claim(s) is/are 8-18 and 20-30.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 10/07/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Allowable Subject Matter

1. Claims 8-18 and 20-30 are allowed.
2. The following is an examiner's statement of reasons for allowance:
3. **As per claim 8 and dependent claim 9**, the examiner found no reference in the prior art that disclosed or made obvious a radiation detection system comprising: a rigid printed wiring board on which a photodiode chip, switching chip and data acquisition chip are commonly mounted as recited in independent claim 8.
4. **As per claim 10 and dependent claim 11-16**, the examiner found no reference in the prior art that disclosed or made obvious a radiation detection system comprising: a rigid multilayer wiring board on which a photodiode chip, switching chip and data acquisition chip are commonly mounted as recited in independent claim 10.
5. **As per claim 17 and dependent claim 18**, the examiner found no reference in the prior art that disclosed or made obvious a radiation detection system comprising: a first printed wiring board on which a photodiode chip and switching chip are mounted; a second rigid printed wiring board on which a data acquisition chip is mounted; and a connector for detachably connecting first rigid printed wiring board to the second rigid printed wiring board as recited in independent claim 17.
6. **As per claim 20**, the examiner found no reference in the prior art that disclosed or made obvious an X-ray CT apparatus comprising: a rigid printed wiring board on which a photodiode chip, switching chip and data acquisition chip are commonly mounted as recited in independent claim 20.

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7. **As per claim 21**, the examiner found no reference in the prior art that disclosed or made obvious an X-ray CT apparatus comprising: a rigid multilayer printed wiring board on which a photodiode chip, switching chip and data acquisition chip are commonly mounted as recited in independent claim 21.

8. **As per claim 22**, the examiner found no reference in the prior art that disclosed or made obvious an X-ray CT apparatus comprising: a first printed wiring board on which a photodiode chip and switching chip are mounted; a second rigid printed wiring board on which a data acquisition chip is mounted; and a connector for detachably connecting first rigid printed wiring board to the second rigid printed wiring board as recited in independent claim 22.

9. **As per claim 23**, the examiner found no reference in the prior art that disclosed or made obvious a radiation detection system comprising: means for forming a detection element group, data acquisition means and substrate into a multilayer structure as recited in independent claim 23.

10. **As per claim 24**, the examiner found no reference in the prior art that disclosed or made obvious a radiation detection system comprising: means for integrating a scintillator block, photodiode array, switch and data acquisition chip as recited in independent claim 24.

11. **As per claim 25**, the examiner found no reference in the prior art that disclosed or made obvious an X-ray CT apparatus comprising: means for forming a radiation detector and at least one of the data acquisition means and switch into a multilayer structure, as recited in independent claim 25.

12. **As per claim 26 and dependent claims 27-29**, the examiner found no reference in the prior art that disclosed or made obvious a radiation detection system comprising: a first substrate

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on which a detection element group is mounted; a second substrate on which a data acquisition chip is mounted and connection means for connecting first and second substrates in a one-to-one correspondence, as recited in independent claim 26.

13. **As per claim 30**, the examiner found no reference in the prior art that disclosed or made obvious an X-ray CT apparatus comprising: connection means for connecting in a one-to-one correspondence a first substrate on which an X-ray detector is mounted to a second substrate on which a data acquisition means is mounted, as recited in independent claim 30.

14. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

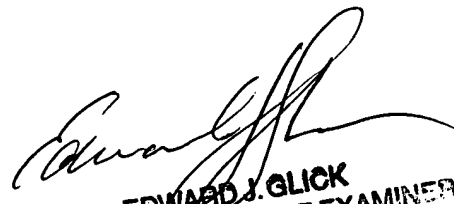
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Courtney Thomas whose telephone number is (571) 272-2496. The examiner can normally be reached on M - F (9 am - 5 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571) 272 2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Courtney Thomas
Examiner
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CT

EDWARD J. GLICK
ASSISTANT PATENT EXAMINER